Appendix 6-5

Drilling Results

6-5
DRILLING RESULTS
5-30-86

GENWAL COAL COM

P.O. Box 1201 • Huntington, Utah 84.
Telephone (801) 687-9813

April 25, 1985

Mr. Toby Manzanares
Moab District Office
Bureau Of Land Management
82 East Dogwood
P.O.Box 970
Moab, Utah 84532

Dear Mr. Manzanares,

Please find enclosed a copy of the drilling information you requested on the phone the other day. I am very sorry for the delay in getting the information to your office.

The information where we did not core must be interpretted from the water returning from the hole and may or may not be accurate. The areas where there was more than two inches of coal were cored and we have these cores stored in this office, Mr. Vance of your Price office has looked at some of the cores, however we will be more than happy for your office to examine these cores and discuss any further questions you may have.

As you can see from the information in the section there are no mineable seams above us at this particular location. Wtih this information and the information from the previous hole we have determined there exists no mineable seams above us on this property. At this point we will begin to make plans to create a larger portal area to better serves the needs of the mine on the Hiawatha level.

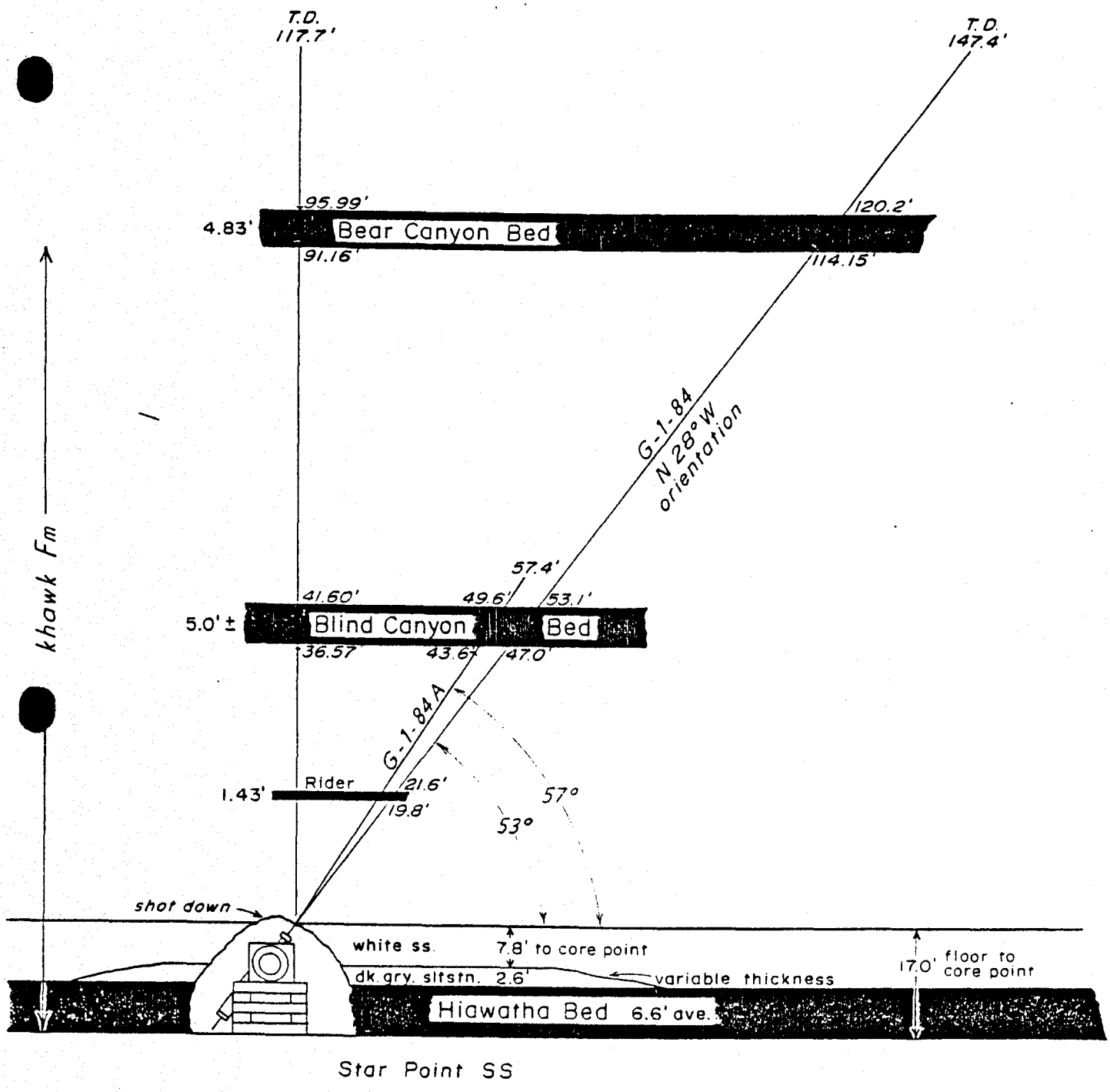
If I can be of any further service please feel free to contact me at 687-9813. Thank you for your time and consideration.

Sincerely yours,

Charles H. Gent Jr.
Vice President

enc.

DRILLING RESULTS DH!
CONFIDENTIAL



Star Point SS

GENWAL COAL COMPANY
D.H. 1

Coal - Utah

GENWAL MINE

DRILL HOLE G-1-84 and G-1-84A

May, 1984 D.R. Olsen

SCALE 1" = 20'

MID TERM REVISION 5-30-86

CHKD. BY .....DATE ..... DESCRIPTION CH-2 JOB NO. .....

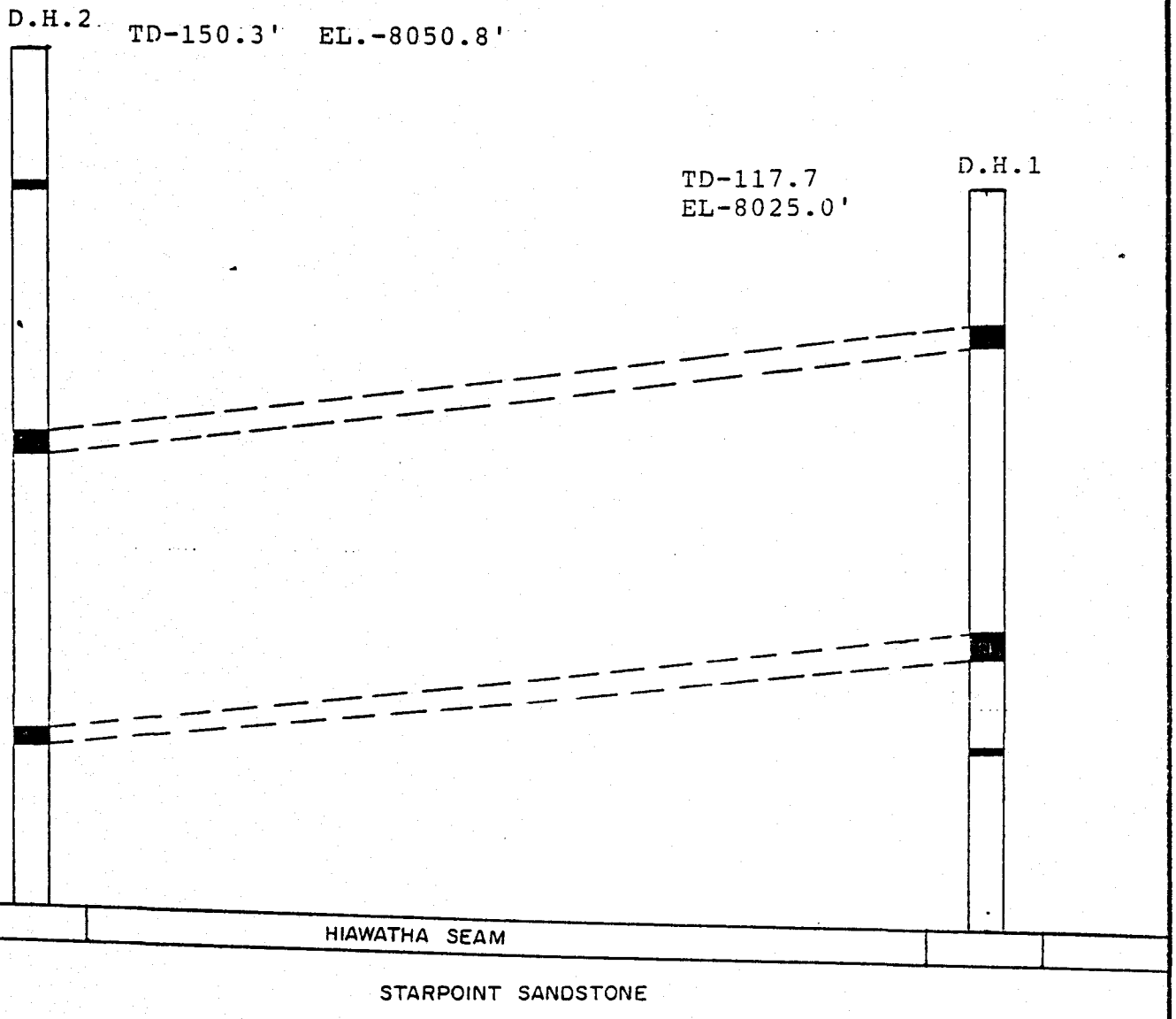
CONFIDENTIAL

[redacted]VE
HIAWATHA

20.7' - 26.7'	WHITE SS
	CORE POINT
28.2' - 31.9'	COAL - BRIGHT, HARD RESINOUS
31.9' - 34.4'	LT. GRAY SHALE
	END CORE
34.4' - 79.5'	GRAY DRILLING RETURN W/ THIN LAYERS OF BROWN STREAKS
	CORE POINT
79.5' - 82.9'	COAL BRIGHT, HARD, RESINOUS
82.9' - 84.4'	WHITE HARD SANDSTONE
	END CORE
84.4' - 125.5'	GRAY DRILLING RETURN → WHT / LT GREY RETURN
	CORE POINT
125.5' - 126.8'	COAL BRIGHT. HARD
126.8' - 128.7'	CARBONACEOUS SHALE W/ COAL PARTINGS AND LENSES
	END CORING
130.0' - 131.1'	BROWN H_2O MUDDY
[illegible]1.1' - 131.2'	COAL
[illegible] - 132.2'	BROWN MUDDY H_2O
[illegible] - 134.0'	WHT H_2O RETURN
[illegible]0' - 144.5'	BROWN MUDDY, LT GRAY, WHT H_2O RETURN THIN LAYERS
144.5' - 145.0'	WHT H_2O RETURN
150.3	TD

6-5
DRILL HOLE X-SECTION
5-30-86

SCALE H 1"=300'
V 1"= 30'



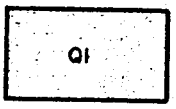
DRILL HOLE CROSS-SECTION

GENWAL COAL COMPANY
5-30-86

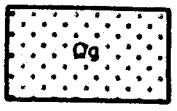
EXPLANATION (continued)

QUATERNARY

Alluvium
Stratified clay, silt, sand, gravel and some unsorted flood deposits.



Landslide Deposits
Mixed rubble and blocks of material slumped from formations at higher elevations.

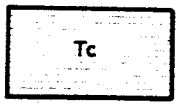


Gravel Deposits
Partly consolidated poorly sorted and stratified deposits of rock fragments of local origin, pediments or terrace, up to 75 feet thick.

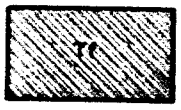
TERTIARY

Volcanic Flows
Bullion Canyon Series, volcanic flows.

Green River Formation
Chiefly greenish lacustrine shale and siltstone.



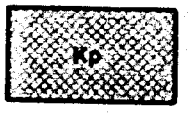
Colton Formation
Varicolored shale with sandstone and limestone lenses, thickest to the north. 300-1,500 feet.



Flagstaff Formation
Dark yellow-gray to cream limestone, evenly bedded with minor amounts of sandstone, shale and volcanic ash, ledge former. 200-1,500 feet.

TERTIARY
CRETACEOUS

North Horn Formation
Variegated shales with subordinate sandstone, conglomerate and freshwater limestone, thickens to north, slope former. 500-2,500 feet.



Price River Formation
Gray to white gritty sandstone interbedded with subordinate shale and conglomerate, ledge and slope former. 200-1,000 feet.

Castlegate Sandstone
White to gray, coarse-grained often conglomeratic sandstone, cliff former, weathers to shades of brown. 150-500 feet.

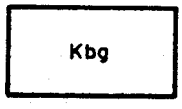
-Unconformity-

Blackhawk Formation
Yellow to gray, fine- to medium-grained sandstone, interbedded with subordinate gray and carbonaceous shale, several thick coal seams. 600-1,500 feet.

Star Point Sandstone
Yellow-gray massive cliff-forming sandstone, often in several tongues separated by Masuk Shale, thickens westward. 90-1,000 feet.

Masuk Shale
Yellow to blue-gray sandy shale, slope former, thick in north and central plateau area thins southward. 300-1,300 feet.

Emery Sandstone
Yellow-gray friable sandstone tongue or tongues, cliff former, may contain coal *(?) in south part of plateau if mapping is correct, thickens to west and south.* Coal *may be present in subsurface to west. 50-800 feet.*



Blue Gate Shale
Pale blue-gray, nodular and irregularly bedded marine mudstone and siltstone with several arenaceous beds, weathers into low rolling hills and badlands, thickens northerly. 1,500-2,800 feet.

Ferron Sandstone
Alternating yellow-gray sandstone, sandy shale and gray shale with important coal *beds of Emery coal field, resistant cliff former, thickens to the south. 50-950 feet.*

Tununk Shale
Blue-gray to black sandy marine slope forming mudstone. 400-650 feet.

GENWAL COAL COMPANY
PLATE 6-1A

KEY FOR PLATE 6-1

FEB. 10, 1988